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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,398	03/01/2004	Meng-Tsung Lo	MSCP0021USA	2397
27765	7590	11/03/2006		
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116				
			EXAMINER KHOLDEBARIN, IMAN KENNETH	
			ART UNIT 3709	PAPER NUMBER

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/708,398

Applicant(s)

LO ET AL.

Examiner

I Kenneth Kholdebarin

Art Unit

3709

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Drawing

1. The drawings were received on 03/01/2004. These drawings are acceptable.

Abstract

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The abstract of the disclosure is objected to because it has been drafted as one long run-on sentence, much like claim 1, which is improper. The abstract should be narrative and consist of a series of complete sentences forming a single paragraph. Correction is required. See MPEP § 608.01(b).

Claim Objections

4. Claim 1 is objected to because of the following informalities:

Claim 1, line 7: "part of the examine," should be -- part of the examinee,--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claims 1 and 3, the limitation “ for detecting the position of a vein in a specific part of examinee” in lines 1-2, respectively, has been understood that the vein is distinguished from the artery in the light of the specification, (See paragraph [0031]), however, within the ordinary skill in the art, a pulse presser belt (31) can not be used to stop the blood current in a vein in different section of body as mentioned in paragraph [0026] in the specification. Instead, the presser is used for lowering the current flow on artery vessels while detecting the pressure and position of the artery.

Therefore, the present invention is not properly disclosed to provide the functionality of the pulse presser to locate the vein rather than artery.

Claims 2, 4 and 5 are dependent upon claim 1 and 3.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claim 1-4 as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Miele (Patent Publication 2002/0055680 A1).

Re Claim 1: Miele discloses:

an ultrasonic vein detector for detecting the position of a vein in a specific part of an examinee / wrist (See fig. 6), the detector comprising:

an ultrasonic emitter / ultrasonic transducer (604) having an oscillator (620) for generation indicative pulse ultrasonic signals toward the examinee (see paragraph [0103]);

a pulse presser / brace pulse transducer (1000) for applying pulse stress signals to the part of the examinee /skin (606) (See paragraph [0098]), with different frequency of the heartbeat;

an ultrasonic sensor / ultrasonic transducer (604), for sensing the back waves which is the reflection of the indicative pulse ultrasonic signals hitting every reflecting point of the part of the examinee (see paragraph [105]), and converting them into electrical signals / step 2006, fig. 20 (See paragraph [0169]), and an inherent microprocessor for receiving the electrical signals from the ultrasonic sensor and calculating the Doppler shift of the electrical signals generated from the back waves in order to find the reflecting points corresponding o the pulse stress signals(See paragraph [0021] and [0075]).

The “transducer” used by Miele is meant to include any type of sensor capable of sensing /receiving one parameter and generation or transmitting a signal based thereon, or alternatively capable of receiving a signal and generating some physical response thereto (see paragraph [0098]).

Re Claim 2: Miele discloses storage / digital signal processing devices (610) to perform digital signal processing requires storing the data for conversion, for storing the electrical

signals outputted by the ultrasonic sensor (604), (See fig. 6, also paragraph [0075] and [0099]).

Re Claim 3: Miele discloses a method comprising:

- (a) emitting an indicative pulse ultrasonic signal toward the examinee from an emitting point; the ultrasound transducer (604) will perform the aforementioned method step (See fig. 3A, step 308, also paragraph [0075]);
- (b) applying pulse stress signals on the examinee, wherein the frequency of the pulse stress signals is different to the frequency of the pulse ultrasonic signal and the heartbeat of the examinee; the pressure transducer (602) will perform the aforementioned method step. (See fig. 3A, step 308, also paragraph [0075]);
- (c) sensing a back wave which is the reflection of the indicative pulse ultrasonic signals hitting from the part of the examinee and converting it into an electrical signal; the ultrasound transducer (604) will perform the aforementioned method step (See fig. 3A step 310, also paragraph [0075] and [0100]);
- (d) calculating the Doppler shift of the electrical signal generated from the back wave in order to find the reflecting point corresponding to the pulse stress signal (See fig. 3A step 312, also paragraph [0075]).

Re claim 4: Miele discloses method for the pulse stress signal to be non-periodic (See paragraph [0008]).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miele.

Although Miele fails to disclose or fairly suggest the method of calculating the time interval between emitting the indicative pulse ultrasonic signal and sensing the back wave and multiplied by the ultrasonic transmission speed, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to calculate the distance between the reflecting point and emitting point by conventional algorithm of velocity and time interval of ultrasonic signal in order to identify location and/or optimal position of, the transducer with respect to the artery.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shiki discloses ultrasonic diagnosis apparatus, Hayase discloses blood flow visualizing diagnostic apparatus, Nagar discloses photo acoustic assay and imaging

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system, Tamura discloses method and apparatus for ultrasound diagnostic imaging, Okada discloses ultrasonic diagnostic apparatus, Hazony discloses ultrasonic transducer, Pinsky discloses methods for treating an ischemic disorder and improving stroke outcome, Lemer discloses ultrasonic measurement of blood flow velocity independent of probe angle and Schutt discloses methods and apparatus for monitoring and quantifying the movement of fluid.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to I Kenneth Kholdebarin whose telephone number is 571-270-1347. The examiner can normally be reached on Monday thru Friday between 8 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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